

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

### **Listing of Claims:**

Claims 1 - 13 (Cancelled)

14. (Previously presented) A semiconductor switch, comprising:

an i-GaAs layer;

a first i-AlGaAs layer formed on said first i-GaAs layer;

an i-InGaAs layer formed on said i-AlGaAs layer;

a n-AlGaAs layer formed on said i-InGaAs layer;

a first anode electrode of a diode formed on said n-AlGaAs layer and supplied with a ground potential;

a second anode electrode of a diode formed on said n-AlGaAs layer and supplied with said ground potential;

an n<sup>+</sup>GaAs layer formed between said first and second anodes on said n-AlGaAs layer; and

a cathode electrode of a diode formed on said n<sup>+</sup>GaAs layer and having a first end coupled to a first terminal and a second end coupled to a second terminal.

15. (Previously presented) The switch as claimed in claim 14, wherein said diode acts as capacitance when said ground potential is applied to said cathode electrode thereby said switch being rendered in ON state.

16. (Previously presented) The switch as claimed in claim 15, further comprising:
- a resistor having a first end connected to said cathode electrode and a second end supplied with said ground potential.

Claims 17 - 20 (Cancelled)

21. (Currently amended) The switch as claimed in claim ~~[[20]]~~ 14, wherein each of said cathode electrode and first and second anode electrodes are a metal layer.
22. (Currently amended) The switch as claimed in claim 21, wherein said first anode electrode is provided to ~~has~~ have a Schottoky junction with said active region.

23. (Currently amended) The switch as claimed in claim 22, wherein said cathode electrode is provided to ~~has~~ have an ~~ohmic~~ ohmic junction with said active region.
24. (Currently amended) The switch as claimed in claim 23, wherein said switch is arranged to use for microwave or millimeter wave.
25. (Currently amended) The switch as claimed in claim 14, further comprising [[A]] a switching circuit, said switching circuit comprising:
- a first coplanar transmission line having a first signal line and a first pair of conductors arranged so that said first signal line is sandwiched between said first pair of conductors, said first pair of conductors being applied to [[a]] the ground potential;
  - a second coplanar transmission line having a second signal line and a second pair of conductors arranged so that said signal line is sandwiched between said second pair of conductors, said second pair of conductors being applied to [[a]] the ground potential;
  - and
  - a diode coupled to a signal line coupling said first signal line of said first coplanar transmission line and said second signal line of said second coplanar transmission line, ~~said diode having~~ a cathode of the diode electrode being coupled to said signal line and an anode ~~electrode~~ of the diode being coupled to [[a]] the ground potential.
26. (Currently amended) The switch ~~circuit~~ as claimed in claim 25, wherein said cathode is supplied with a negative voltage so that the switching circuit is to be in an off state and is supplied with a zero bias so that the switching circuit is to be in an on state.

27. (Currently amended) The switch as claimed in claim 26, wherein said switch is arranged to use for microwave or millimeter wave.